DOCUMENT RESUME

ED 344 077 CE 060 899

TITLE Hotel & Food Service Industries. Workforce & Workplace Literacy Series.
INSTITUTION Business Council for Effective Literacy, New York, NY.
PUB DATE 10 Jan 92
NOTE 10p.
AVAILABLE FROM Business Council for Effective Literacy, 1221 Avenue of the Americas, 35th Floor, New York, NY 10020 ($5.00).
PUB TYPE Reference Materials - Directories/Catalogs (132) -- Collected Works - Serials (022)
JOURNAL CIT BCL Brief; n3 Jan 10 1992

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adult Literacy; *Basic Skills; *Food Service; Grants; *Hospitality Occupations; Hotels; Job Skills; Job Training; National Organizations; Program Development; *Service Occupations; Technical Assistance
IDENTIFIERS *Workplace Literacy

ABSTRACT

This brief gives an overview of the topic of workplace literacy for the hotel and food service industries and lists program contacts. The following organizations operate employee basic skills programs for hotel and food service employees, provide technical assistance, or operate grant programs: Essential Skills Resource Center; Language Training Designs; Marriott Corporation; Virginia Literacy Foundation; Arlington Education and Employment Program; Boca Raton Resort and Club; BostonWorks; Orange County Public Schools (Florida); California State Library; Beaufort County Literacy Council (South Carolina); West Georgia Tech; Dobbs International Services, Inc.; Hawaii Governor's Council for Literacy; University of Hawaii at Manoa; GRASP Adult Learning Center; Literacy Assistance Center; Literacy Volunteers--New Jersey; Philadelphia Mayor's Commission on Literacy; Quapaw Vocational Technical School; Restaurant Business Magazine; Restaurants and Institutions magazine; University of Illinois; University of Massachusetts; Arbor Incorporated; Guest Quarters Suite Hotels; and Division of Adult Education and Literacy, U.S. Department of Education. Each listing may include the following: organization name, acronym, description, address, and telephone number. Attached is a newsletter article reviewing a report commissioned by the U.S. Department of Labor entitled "Workforce 2000: Work and Workers for the 21st Century." (NLA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BCEL
Business Council For Effective Literacy
1221 Avenue of the Americas, New York, N.Y. 10020
212-512-2415/2412

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Brief

Workforce & Workplace Literacy
No. 3 Rev. January 10, 1992

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED344077

Hotel & Food Service Industries

INTRODUCTION

According to the Hudson Institute's Workforce 2000: "In absolute numbers the biggest job categories to be created [in the coming years in the U.S.] will be service occupations, administrative support, and marketing and sales, which together will account for half of the net new jobs. In the service category, the largest groups of workers will be cooks, nursing aides, waiters, and janitors." (See attached summary.) Thus, the U.S. workplace will need more qualified cooks, waiters, and other food service personnel, as well as custodial workers. These job categories are already major segments of the hotel and restaurant workforce.

To be competitive, hotels and restaurants which hire food service and other kinds of workers are putting increased emphasis on "quality." Quality service in these industries will in turn require the ability to use computerized record-keeping equipment, use cookbooks to prepare previously-exotic meals, and perform other tasks never before seen in the industry.

Many of the food service and custodial jobs in the hospitality industry tend to attract low-skilled, entry-level workers who have limited formal education. In some states, limited English proficient immigrants make up the majority of hospitality workers. For these employees to handle the industry's emerging demands for quality and new technologies, many will require upgrading of their basic skills, including their communications skills.

To date there have been no industry-wide workplace education initiatives by trade associations or unions representing the hotel and food service industries, as there have been in banking and printing.

Contacts:

The following people/organizations are operating general or job-specific employee basic skills programs for hotel and food service employees, providing significant technical assistance in the development of such programs, or operating grant programs in support of workplace projects in the industry:

1. Linda Stoker, Director, Essential Skills Resource Center, P.O. Box 426, Cambridge, MA 02141, (617) 643-3814. Ms. Stoker was the architect of the Polaroid Corporation's Fundamental Skills and Technology Readiness Programs. She and her staff developed the industry-wide Carl Didde WorkPLACE program released in the fall of 1990 by the National Association of Printers & Lithographers. The Center is a reconstitution of Cox Educational Services which Stoker was instrumental in founding. Stoker has worked with several food

CE 060 499

BEST COPY AVAILABLE

service companies. She has developed workplace programs for big and small companies, colleges, and community agencies. She has also produced guides and other technical assistance material and can offer workshops to help others in the development of workplace programs and the training of trainers. One of the most experienced national technical assistance organizations in workplace literacy.

2. Anne Lomperis, Language Training Designs, 16 Butterfield, Irvine, CA 92714. Call (714) 552-4601 on evenings and weekends and (714) 856-5736 at the University of California-Irvine during the day. Lomperis is a specialist in workplace programs for limited English speakers. She has wide international experience and has worked broadly in the U.S. with the hotel and food service industries. Other clients have included cruise lines, airlines and airports, and manufacturing plants on the Texas-Mexico border. The organization has developed criteria for effective programming in workplace language training programs, from the perspective of both the educational provider and the employer.

3. Virginia Rebata, Manager, EEO/AA and Special Programs, Food & Services Management Division, Marriott Corporation, Department 819.61, Marriott Drive, Washington, DC 20058, (301) 380-8765. Rebata is developing a corporate-wide strategy for dealing with the employee basic skills issue. In Spring 1991, Marriott began piloting a job-related literacy program at its headquarters in Bethesda, Maryland. Partners in the effort are Montgomery Community College and the American Association of Junior and Community Colleges. Ms. Rebata was formerly with the National Alliance of Business with responsibility for workplace and workforce literacy.

4. Mark Emblidge, Executive Director, Virginia Literacy Foundation, P.O. Box 1125, Richmond, VA 23208, (804) 225-8777. Stephen Nunes, Director, Office of State Adult Literacy, James Monroe Building (18th Floor), 101 North 14th Street, Richmond, VA 23219, (804) 225-4430. The Foundation (focusing on the private sector) and the Office of State Adult Literacy (focusing on the public sector) share statewide responsibility for developing general and workforce literacy in Virginia. They are involved in a number of workplace projects in the hotel and food service industries.

5. Elaine Squeri, Workplace Coordinator, Arlington Education and Employment Program, Wilson School, 1601 Wilson Boulevard, Arlington, VA 22209, (703) 358-4200. Works with 14 local hotels to operate employee ESL programs--including Days Hotel, Best Western, Embassy Suites, Holiday Inn, Hyatt, Quality Hotel, Sheraton, Stouffer's, Guest Quarters, Ramada Inn, Old Colony Inn, and the Marriott. The Chambers of Commerce in Arlington and Alexandria are also involved in the effort.

6. Claudia Riedl, Director of Staff Development, Boca Raton Resort and Club, PO Box 5025, Boca Raton, FL 33431-0825, (407) 395-3000, ext. 1178. Operates an ESL program for a large number of the Resort's immigrant employees. The curriculum focuses on job-related tasks, intercultural issues, and personal development.

7. Cynthia Chorianopoulos, Director, BostonWorks, 2 Oliver Street - 9th Floor, Boston, MA 02109, (617) 423-3755. This job-training program provides basic skills, ESL instruction, and job-specific instruction for customer-service jobs in local hotels and other industries, with a focus on developing vocational and interpersonal skills. A major purpose of BostonWorks is to create training opportunities for unemployed and underemployed adults.

Several businesses, making up a BostonWorks Roundtable, are active partners in the effort, including the Marriott, Guest Quarters, and Westin Hotels. BostonWorks has built up some 32 programs throughout the region. Each is self-paced and on the average lasts 12 weeks. Businesses involved in the effort conduct presentations for the students about their industries, lead tours through their offices, hold informational interviews, encourage "job-shadowing," and sponsor internships.

8. Tony Lagos, Adult Education, Orange County Public Schools, 445 West Amelia Street, Orlando, FL 32801, (407) 849-3200, ext. 2839, or (407) 849-3286. Twenty-five Orlando-area hotels are operating on-site ESL classes for immigrant employees in collaboration with the ABE program of the Orange County Public Schools. OCPS has developed a generic curriculum related to the hospitality industry. The program instructors--who come from the area's four vo-tech centers--further customize the curriculum to meet the training priorities of each employer. They also use the business forms and instruction manuals of the particular hotel in which classes are held. Instructors identify and are sensitive to the cross-cultural needs of the employees in their training classes.

9. Paul Kiley, Community Organization Specialist, Library Development Services, California State Library, 1001 Sixth Street, Suite 300, Sacramento, CA 95814, (916) 324-7358. Kiley is a source of general information on workplace programs in the state, including those in the hotel and food service areas.

10. Peggy May, Executive Director, Beaufort County Literacy Council, PO Box 21118, Hilton Head Island, SC 29925, (803) 681-6655. Operates basic skills programs in several area hotels, including the Marriott, Royal Golf and Tennis, and Sea Pines Plantation. Last year, a volunteer/retiree worked with 30 Marriott employees with basic skills problems who were required to pass a special sanitation exam. At the end of three months, all but five passed the test. With some additional tutoring by the retiree, the remaining five also succeeded.

11. Wayne Snelgrove, Director of Developmental Studies, West Georgia Tech, 303 Fort Drive, LaGrange, GA 30240, (404) 882-2518. Callaway Gardens, a resort in Pine Mountain, Georgia, worked with West Georgia Tech to assess the need for a general basic skills program for its employees who come from surrounding rural communities. As a result, an on-site program has been set up which serves employees of Callaway Gardens and the general public. Callaway Gardens provides the facilities, and West Georgia Tech the instructor and materials.

12. Willie Blackwell, Literacy Coordinator, Dobbs International Services, Inc., 1669 Phoenix Parkway, Suite 204, College Park, GA 30349, (404) 991-4519. A Greyhound-owned food service company, Dobbs prepares airline meals and operates restaurants in U.S. airports. Dobbs began providing basic skills training to workers in its Atlanta airport facility in 1988. In 1991, the "Dobbs Caters to Learning" programs were extended to offices in Dallas, Charlotte, Memphis, Orlando, and Tampa; and the program was opened to families of the employees. The company's goal is to expand the program to all of its 51 facilities by 1995.

13. Sue Berg, Program Coordinator, Governor's Council for Literacy, Governor's Office of Children & Youth, P.O. Box 3044, Honolulu, HI 96802, (808) 586-0110. The Governor's Council for Literacy has been encouraging hotels and other businesses around the state to set up workplace literacy programs. The examples cited here are only a sampling of the programs that have been established or are under way: The Kaanapali Beach Hotel works with the Maui

Hui Malama literacy program in Wailuku. Volunteers from the hotel staff and surrounding community are trained to serve as tutors for hotel employees desiring tutorial help. RockResorts and the International Longshoremen's and Warehousemen's Union in 1990 set up a basic skills program for workers on the island of Lanai. Participants are either making the transition from agricultural to tourist industry jobs or trying to qualify for better jobs in the pineapple industry. The Coco Palms Hotel in Kauai operates a job-linked basic skills program on company premises in which employees tutor fellow employees, using a curriculum which includes vocabulary and concepts encountered on the job. The Hilton Hawaiian Village Hotel in Honolulu has established workplace literacy and ESL programs. (See also #14.)

14. Anita K.S. Li, Project Coordinator, University of Hawaii at Manoa, College of Education, Wist Hall #216, 1776 University Avenue, Honolulu, HI 96822, (808) 956-7834; or Akiko Takahashi, Regional Manager of Human Resources, ITT Sheraton Hotels in Hawaii-Japan, 2255 Kalakaua Avenue, Honolulu, HI 96815, (808) 924-5248. Seven ITT Sheraton Hotels in the state are working with the University in a program called SUCCESS (Sheraton's Unified Commitment Concerning Employee's Self-Success). The program, which is designed for housekeeping, food service, and other entry-level staff, began in October 1988 and has so far enrolled some 775 Sheraton employees. It provides ESL instruction, high school diploma preparation, and basic reading, writing, and math. The basic skills curriculum has been built around actual job tasks, assessed learner needs, and interviews with employees and managers. Classes are given at the Human Resources Center of the Sheraton hotels and run from 8 a.m. to 6 p.m. six days a week, with employees taking part on a voluntary basis. A recent evaluation of the program found that it has resulted in a 59 percent improvement in overall job productivity and a 61 percent increase in work quality.

15. Cheryl Judice, Executive Director, GRASP Adult Learning Center, 815 Chicago Avenue, Evanston, IL 60202, (708) 328-4420. GRASP, established in 1975, works with small businesses in the Chicago region, providing basic skills, ESL, and high school equivalency courses as needed. GRASP has set up an ESL program for Latin American employees at nearby Carmen's Pizzeria and offers ESL instruction to other Chicago-area companies. The curriculum is customized to each particular job setting.

16. Dan Rabideau, Clearinghouse Coordinator, Literacy Assistance Center, 15 Dutch Street, 4th floor, New York, NY 10038, (212) 267-5309. Mr. Rabideau formerly ran ESL classes for employees at the Vista Hotel in New York City's World Trade Center.

17. Margie Oppenheimer, Executive Director, Literacy Volunteers-New Jersey, PO Box 325, Manville, NJ 08835, (201) 231-0039. LV-NJ has trained employees at Harrah's Marina Hotel/Casino in Atlantic City to tutor fellow employees.

18. Donna Cooper, Executive Director, Mayor's Commission on Literacy, 1500 Walnut Street, Philadelphia, PA 19102, (215) 875-6602. The Mayor's Commission has urged local employers to establish employee basic skills programs. In one case, the Sheraton Society Hill Hotel built a training room where staff from the Community College of Philadelphia offer basic skills and other education programs to employees.

19. LaJuana Mooney, Coordinator, Adult Education, Quapaw Vocational Technical School, 201 Vo-Tech Drive, PO Box 3950, Hot Springs, AR 71914, (501) 767-9314. Runs basic skills programs in a number of local companies, including the Park Hilton where employee classes are held in the executive dining room. Employees attend on their own time after work, but management pays for their books and supplies, and serves them a free dinner.

20. Lori Barker, Restaurant Business Magazine, 633 Third Avenue, 33rd floor, New York, NY 10017, (212) 984-2348. Has investigated the issue of employee basic skills in the restaurant industry.

21. Michael Bartlett, Editor, Restaurants & Institutions, 1350 E. Touhy, Des Plaines, IL 60018, (312) 635-8800. This trade magazine for the food service industry covered the workplace literacy issue in its September 2, 1988, October 16, 1989 and October 31, 1990 issues (see "References" below).

22. Hortensia Ramos, Director of Food Services, University of Illinois, URH-LAR, Room 17, 1005 South Lincoln, Urbana, IL 61801, (217) 333-1407. For the past 11 years, the Food Services Department at the University has run a basic skills program for both native-born and immigrant employees. The program has attracted national attention.

23. Joe Connolly, Coordinator, Labor-Management Workplace Education Program, University of Massachusetts, 116 Hampshire House, Amherst, MA 01003, (413) 545-READ. The L-M/WEP is a partnership between the University of Massachusetts and the local American Federation of State, County & Municipal Employees. A variety of courses are being offered to University employees, including basic skills classes for food service workers.

24. Elizabeth Coley, Manager, Program Development, Arbor Incorporated, 1 West Third Street, Media, PA 19063, (215) 566-8700. Headquartered in Pennsylvania, Arbor runs training programs in 13 states for clientele from government-funded programs such as JOBS and JTPA. Arbor's training focuses primarily on interpersonal/generic skills needed by entry-level workers--communication skills, problem-solving skills in the workplace, good work ethics, and the ability to adapt to a multi-cultural working environment. Within the hotel/hospitality industry, Arbor has worked with Sheraton, Hyatt, Guest Quarters (see also #25 below), and others. Typically, the programs are held on-site at various hotels or at a "host" hotel before workers are hired. The hotels guarantee a certain number of job slots for those who successfully complete the course (90 percent do). The newly-hired employees with basic skills problems can then take advantage of on-site programs or are referred to community education groups. Arbor stresses that employers with whom they agree to work must be supportive and open to change.

25. Steven Fraser, National Director of Training, Guest Quarters Suite Hotels, 8 Rose Wharf, Boston, MA 02110, (617) 330-1440. As part of a pilot program last year in which a number of Boston hotels participated, Fraser conducted a specialized pre-employment training program for 11 people recruited from the welfare population. On completion of the course, trainees were hired for entry-level positions in the hotels. Nationwide, Guest Quarters has in place on-site ESL and on-the-job instructional programs for its employees.

26. Sarah Newcomb, Division of Adult Education & Literacy, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-7240, (202) 732-2390 or (202) 732-2272. The DAEL has given some $60 million in workplace literacy project grants since 1989; some of the funded projects involve hotel/food service groups.

References

Literacy Problems Threaten Revenues, 9/2/88; *English Language Programs Are Worth The Investment*, 10/16/89; and *If You Don't Have A Literacy Program, Read This Now!*, 10/31/90, Restaurants & Institutions. For copies contact Lorry Zirlinn, Restaurants & Institutions, 1350 East Touhy Avenue, Des Plaines, IL 60017-5080, (708) 390-2026.

The ABC's of Literacy: Programs from the Workplace to the Classroom," Restaurants USA, January 1990. For a xerox copy contact Melanie Crosby, National Restaurant Association, 1200 17th Street NW, Washington, DC 20036, (202) 331-5900.

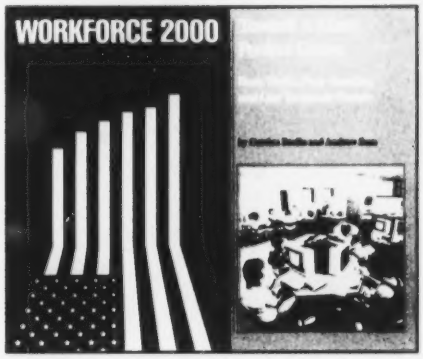
Workforce 2000: Work and Workers for the 21st Century (see attached BCEL Newsletter summary) was prepared by The Hudson Institute for the U.S. Department of Labor and published in June 1987. This groundbreaking report has already had a powerful impact on national understanding of the workforce and workplace illiteracy problem. It was the first serious and comprehensive effort to analyze current and future workforce literacy and education retraining in the context of national demographic, economic, and social trends. Among other things, it confirms that even though hotel and food service jobs will increase during the next decade or so, the pool of available workers will significantly lack the basic skills required for those jobs. The full report is available for $4.50 from The Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 783-3238.

Copies of this Brief are available from BCEL for ~~$3.00~~ $5.00 each prepaid.

BCEL BUSINESS COUNCIL FOR EFFECTIVE LITERACY

NO. 16 JULY 1988

GUIDING LIGHTS:
Policy & Planning



A number of reports have been published in the past few months with important implications for policymakers, employers, and literacy workers. Two of the most significant, *Workforce 2000* and *Toward A More Perfect Union*, are the subject of this article.

These reports come at the problem of present and future basic skills needs from different perspectives but they are mutually reinforcing. They command attention because they represent new thinking at the highest levels and bring a new level of sophistication to notions about the problem. They speak to planners in the corporate world, in labor, education, and in government and social service agencies across the country.

WORKFORCE 2000: Work And Workers For the 21st Century

Workforce 2000 was commissioned by the U.S. Department of Labor from the Hudson Institute to help shape federal workplace policies and programs as the nation moves toward the next century. It is a rich source of information about jobs of the future and the increasingly higher levels of skills and education they will require. As such, it is the raw material of planning for those at every level who need to evaluate how they are positioned to meet what is coming. The report documents labor patterns and social trends that have been ongoing for decades. It serves notice that these trends are now converging and by the year 2000 will produce an America that is unrecognizable from one that existed only a few years ago.

Chief among the changes is the now familiar shift from manufacturing to service industries, which is already transforming the American economy and the experience of workers in fundamental ways. (Just ask any of the 11.5 million Americans who lost their jobs between 1979 and 1984, and the two million more who, according to various government agencies, are being laid off each year.) This shift, in tandem with others such as a workforce that is becoming older, more female, and more disadvantaged, and the trend toward jobs that will call for much higher skills, are among the forces creating a new social setting.

The new setting will render irrelevant the policies guiding today's economy and labor markets, which were designed in the 30s and 60s in response to the conditions of those decades –i.e. social security, welfare, unemployment insurance, trade adjustment assistance, and training programs, among others.

Take welfare. The present program was designed long before most women worked. Now that a majority of all women with young children work, it no longer seems cruel to require welfare mothers to do so. A new program therefore might well mandate work for all able-bodied welfare mothers except those with infants, backed up by training, day care, job counseling, and a job creation program.

Because long range forecasts are uncertain, *Workforce 2000* provides alternative scenarios based on different rates of economic growth, but they have in common several key points about the U.S. economy and job market over the next 12 years and beyond.

(cont'd on page p. 6)

CONTENTS:

BCEL Editorial	1
Guiding Lights: Policy & Planning	1
News In Brief	2
Breaking The Cycle	3
Dumbing Down Or Smartening Up?	4
In The States	9
Corporate Literacy Action	10
Available From BCEL	12
In The Works	12

GUIDING LIGHTS (cont'd from p. 1)

The Economic Background. U.S. growth and world growth are tightly linked. The baseline or "surprise-free" scenario forecasts that the U.S. will grow at a rate of about 2.9 percent compared to 3.1 percent for the world as a whole. The developing nations at the threshold of industrialization will surge ahead.

Manufacturing and manufacturing jobs will decline as a share of the GNP. Where manufacturing produced some 30 percent of all goods and services in 1955, and 21 percent in 1985, its share will drop to less than 17 percent by the year 2000. Just as agriculture lost its central role in the American economy at the beginning of the century, so will manufacturing lose economic importance as the century draws to a close. The report cautions that "those who fail to recognize this inevitable trend–for example, states that try to capture new factories to boost their local economies–will be swimming upstream against a powerful tide..."

But the news isn't all bad. The downhill slide in manufacturing should not be interpreted as a decline in the American destiny, according to the report. On the contrary, it signifies an advancing stage of growth. Historically, economic development all over the world follows a predictable pattern in which agricultural production shifts to manufacturing and then to services. Indeed, the shift to services is a reliable barometer of the stage of industrial advancement that a country has achieved.

What's more, as the world economy prospers, so will ours. It will be in our own interest to help boost the economies of other countries and, as we do so, there will be new opportunities in our own future.

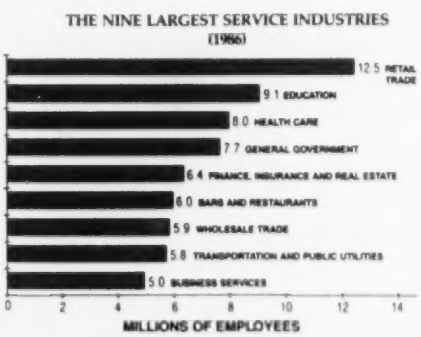
"The envy and anger that many in the U.S. feel toward Japan's success should not blind policymakers to the reality that as Japan (and every other nation of the world) grows richer, the U.S. will benefit–just as it is easier for a company to prosper in a rapidly growing market than to capture market share in a shrinking one....Most of the steps that must be taken to improve U.S. competitiveness have little to do with changing the behavior of the Japanese or Koreans."

As manufacturing shrinks, a major key to the well-being of the U.S. will be improvement of productivity in the service industries. But the report warns that a serious gap is emerging between the advancing skills requirements of the new service economy and the poor skills of new entrants into the labor force. "It has been observed," it states, "that in the competition between the U.S. and Japan, the world's best educated lower half of the workforce is beating the world's best educated upper half." One of the things we must must attend to, therefore, is substantial improvement in the education of large numbers of prospective workers. And this must, *Workforce 2000* stresses, be assigned a high place on the nation's agenda.

Just what are the service industries? Which occupations in them will grow most rapidly? And who will be comprising the new workforce?

The Service Industries. In essence, the service industries are those which do not produce goods. They create economic value without creating a tangible product, though some may add value to manufactured or other products by making them more available, as in transportation or retailing.

The nine largest U.S. industries, ranked in size according to the number of persons they employed in 1986, are shown in the following figure *(Workforce 2000, p. 22)*:



The Changing Job Mix. The above list indicates that many commonly-held assumptions are untrue–for example, that service industries are synonymous with "an information economy" or that service jobs are low quality jobs. The fact is that many of these services have nothing to do with information, and that many–in medical care, finance, and transportation, for instance–are capital and technology intensive. They require extensive knowledge and training, and they pay premium wages.

Workforce 2000 forecasts that the job prospects that will quickly outstrip opportunities in other fields are the professional and technical, managerial, sales, and service jobs. The fastest growing fields? Lawyers, scientists, and health professionals. The disappearing ones? Not surprisingly, machine workers and assemblers, miners, and farmers. The Table at the right shows the changing occupational structure in more detail *(Workforce 2000, p. 97)*:

Rising Educational and Skill Requirements. The fastest growing jobs show a striking trend toward higher educational requirements. Between now and the year 2000, for the first time in history a majority of all new jobs will require some postsecondary education. The median years of schooling required will be 13.5 compared to 12.8 for present-day workers. Almost a third of all jobs will be filled by college graduates. Today, only 22 percent of all occupations require a college degree. Indeed, many professions will call for nearly a decade of study following high school. And even the least skilled jobs will require a command of reading, computing, and thinking that was once necessary only for the professions.

Higher Language, Math, and Reasoning Skills Will Be Needed. Analysis shows that most jobs will require much higher levels of math, language, and reasoning ability. When these specific skill requirements are averaged, only 4 percent of the new jobs can be performed by persons at the lowest skill levels, compared to 9 percent today.

Low-Skill Jobs Are Declining. While the overall pattern of growth is weighted toward higher skilled occupations, very large numbers of new jobs will be created in some medium-to-low-skilled fields. In fact, in absolute numbers the biggest job categories to be created will be service occupations, administrative support, and marketing and sales, which together will account for half of the net new jobs.

In the service category, the largest groups of workers will be cooks, nursing aides, waiters, and janitors. Among administrative support jobs, secretaries, clerks, and computer operators will predominate. In marketing and sales, most of the new slots will be for cashiers. With the exception of computer operators, most of these large categories require only modest levels of skills. But even for these jobs, which typically fall in the middle range of skills needed for present jobs, workers will be expected to read and understand directions, add and subtract, and speak and think clearly. In other words, jobs now in the middle of the skill distribution range will become the least skilled occupations of the future. For unskilled workers job opportunities will be very scarce.

THE CHANGING OCCUPATIONAL STRUCTURE, 1984–2000

Occupation	Current Jobs (000s)	New Jobs (000s)	Rate of Growth (Percentage)
Total	105,008	25,952	25
Service Occupations	16,059	5,957	37
Managerial and Management-Related	10,893	4,280	39
Marketing and Sales	10,656	4,150	39
Administrative Support	18,483	3,620	20
Technicians	3,146	1,389	44
Health Diagnosing and Treating Occupations	2,478	1,384	53
Teachers, Librarians, and Counselors	4,437	1,381	31
Mechanics, Installers, and Repairers	4,264	966	23
Transportation and Heavy Equipment Operators	4,604	752	16
Engineers, Architects, and Surveyors	1,447	600	41
Construction Trades	3,127	595	19
Natural, Computer, and Mathematical Scientists	647	442	68
Writers, Artists, Entertainers, and Athletes	1,092	425	39
Other Professionals and Paraprofessionals	825	355	43
Lawyers and Judges	457	326	71
Social, Recreational, and Religious Workers	759	235	31
Helpers and Laborers	4,168	205	5
Social Scientists	173	70	40
Precision Production Workers	2,790	61	2
Plant and System Workers	275	36	13
Blue Collar Supervisors	1,442	−6	0
Miners	175	−28	−16
Hand Wworkers, Assemblers, and Fabricators	2,604	−179	−7
Machine Setters, Operators, and Tenders	5,527	−448	−8
Agriculture, Forestry, and Fisheries	4,480	−538	−12

Source: Hudson Institute.

The Looming Mismatch. The problem that looms becomes apparent when all of this is juxtaposed with the inadequate skills of the developing workforce. As it is, the low levels of basic skills among today's 21-25 year-olds, as found in the recent National Assessment of Educational Progress, is a matter for concern (as is the skills levels of much of the current workforce). This problem is compounded by the composition of the new entrants into the labor force, many of whom are disadvantaged and not well matched to the jobs the economy is creating.

Between now and the year 2000 the population and the workforce will grow more slowly than at any time since the 1930s. The average age of both will rise and the pool of young workers will shrink.

Minorities will comprise a larger share of the pool of new workers, making up 29 percent of the entrants into the labor force, twice their current share. Immigrants will represent the largest share of the increase for the first time since World War I. Some 600,000 legal and illegal immigrants are projected to enter the U.S. annually for the rest of the century. More women will be working as well. More than 60 percent of all women of working age are expected to have jobs by the year 2000, representing almost two-thirds of all new workers. (They will still be concentrated in jobs that pay less than men's jobs, but they will be rapidly entering many higher paying professional and technical fields.) Non-whites, women, and immigrants together will comprise more than five-sixths of the net additions to the workforce, though they make up only about half of the workforce today.

Changes in the job market will affect the different groups in different ways. Older workers who lose jobs will be hard-pressed to match previous salaries when they find new ones. While young whites may find their job prospects improving, for black men and Hispanics the job market will be particularly difficult. In contrast to their rising share of the new entrants into the workforce, black men will hold a declining fraction of all jobs if they simply retain their current share of various occupations. Black women, however, will hold a rising portion of the new jobs, though this increase will be less than needed to offset their growing share of the workforce.

Among the various implications of the new national scenario is that with more single mothers and two-parent households at work, employers and government will need to reconcile the demands of the workplace and the family. Arrangements will be needed for part-time work, flexible hours, pregnancy leave for parents, and so forth. Daycare, like health care in the 70s, will claim a rising portion of national income. (Currently, only about 2,000 of the nation's six million employers provide daycare as a fringe benefit, though the evidence is that those who do have less turnover and absenteeism, and higher worker productivity, than those who don't.) Indeed, in the next decade and beyond, policies and patterns of child-rearing, taxation, pensions, hiring, compensation, and industrial structure will need to change to conform to the new realities.

Most pointed with regard to education is that if new efforts to employ minority workers are to succeed where others have failed, the entire public education system will need radical overhauling: "Traditional job training and employment programs by themselves are unlikely to have profound impacts on the success of minority youth. Unless the $127 billion public education system can somehow be better harnessed to serve minority youth, a $4 billion Job Training Partnership Act can make only a small dent in the problem."

The study sees employers having a new and more extensive role to play in the development of their workforces. It holds that they are among the most knowledgeable designers of cost-effective training programs and that "second chance" educational systems developed at the worksite are likely to play a key role. But it also calls for government-funded R&D programs aimed at improving the nation's productivity.

The concluding words of *Workforce 2000* are these:

"Promoting world growth, boosting service industry productivity, stimulating a more flexible workforce, providing for the needs of working families with children, bringing minorities into the workforce, and improving the educational preparation of workers are not the only items on the nation's agenda between now and the year 2000 but they are certainly among the most important. More critically, they are issues that will not go away by themselves. If nothing unusual is done... they are likely still to be with the nation at the beginning of the next century." The time to address them is now.